

or only very slightly known; and I am convinced that many more are only waiting for me to call again and make their acquaintance.

MALDEN, MASSACHUSETTS.

THE DISTINCTIVE FEATURES OF *IRIS HOOKERI*.

J. FRANKLIN COLLINS.

(Plate 39.)

IN the February RHODORA¹ Dr. G. G. Kennedy records the finding of *Iris Hookeri*, Penny; at Cutler, Maine. On the second of July, 1902, Dr. Kennedy, Messrs. E. F. Williams, M. L. Fernald and the writer found an abundance of the plant at the station mentioned. Upon comparison with *I. versicolor*, which grew in close proximity, several important differences were noticed, which as emphasizing the distinctness of the species seem worthy of record.

I. Hookeri has narrower leaves with more prominent nerves, it is more strict and less glaucous than *I. versicolor*, and it grows in situations where the drainage is apparently better — e. g. along the edges of gravelly beaches and at the crests of the ocean cliffs where the plants are often subjected to baths of salt spray. The spathes are usually greener and appear to be inwardly falcate; really however, they are conduplicate, strongly pointed, and incurved throughout the upper part. At the base the plant is more or less purplish and often there are purple flecks scattered along the lower portions of the leaves.

In the flower and fruit, however, the most distinctive characteristics are found. In *I. Hookeri* the inner segments of the perianth (or petals) are totally different from the corresponding parts of *I. versicolor*. This contrast is well brought out in the accompanying plate, in which figures 4, 5, 6, and 7 represent petals of *I. Hookeri* and figure 8 a petal of *I. versicolor*, — all natural size. The petals in the former are not only very small and comparatively inconspicuous, but have their edges involute below or even rolled up so as to form a hollow tube-

¹ RHODORA, iv. 23 (1902).

like structure. These vary more or less but are seldom larger than represented in the plate, which shows three of the different forms noticed. The two petal-like lobes at the apex of each style-branch are in *I. Hookeri* usually spreading rather than slightly overlapping as was noticed to be the case in specimens of *I. versicolor* observed at Cutler.

The fruit of *I. Hookeri*, which matures fully two weeks earlier than that of *I. versicolor*, is broader, shorter, and thinner-walled. It is always beakless and is sometimes rather bluntly triangular while at others, especially when young, it is inclined to be sharply angled.

The plants grow in great abundance on the farm of Mr. W. R. Corbett of Cutler, who told us that since Dr. Kennedy called his attention to the two species last year he had been watching them and now had no difficulty in telling them apart, even in the dark, by simply feeling of the pods. It is not easy to imagine a more beautiful sight than that formed by thousands of these plants growing as they do along the summits of the cliffs, often making blue areas which can be seen for a long distance.

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EXPLANATION OF PLATE 39.—*Iris Hookeri*: fig. 1, flowering branch; fig. 2, leafy branch; fig. 3, bud; figs. 4, 5, 6, petals; fig. 7, side view of petal; fig. 9, young fruit; fig. 10, cross-section of the same; fig. 11, older fruit; fig. 12, cross-section of the same. *Iris versicolor*: fig. 8, petal.

NOTES ON VERMONT MOSSES.

A. J. GROUT.

SINCE the publication of the supplement to my Vermont Mosses I have spent two summers in the state and have collected copiously each season.

I have found several species not before reported from the state and have also been able to verify several of Frost's doubtful reports so that it seems probable that his list is entirely reliable.

The collections from Newfane have been of special interest to me as they are mostly from places familiar to me from childhood and over which I had passed times without number.